

Claims

- [c1] 1. A computer readable storage medium comprising:
software including data representing digital content; and
at least one identifier associated with the software prior
to distribution of the software, the at least one identifier
being detectable by a resident authorized representative
to request authentication of the software and selective
exchange of information with a remote authorized rep-
resentative.
- [c2] 2. The computer readable storage medium of claim 1
wherein the software includes instructions for the resi-
dent authorized representative to contact a remote au-
thorized representative at predetermined intervals.
- [c3] 3. The computer readable storage medium of claim 2
wherein the exchange of information includes informa-
tion selected from a group consisting of updates, up-
grades, patches, marketing information, promotional in-
formation, quality assurance information, network moni-
toring and metering information, and error and usage
information.
- [c4] 4. The computer readable storage medium of claim 1

wherein the exchange of information includes instructions for dynamic authorized representative changes.

- [c5] 5. The computer readable storage medium of claim 1 wherein the exchange of information includes instructions for repeating the step of authentication.
- [c6] 6. The computer readable storage medium of claim 1 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system component, code for a game, data representing a movie, data representing graphics, data representing water-marked works, data representing a magazine, and data representing a book.
- [c7] 7. The computer readable storage medium of claim 1 wherein the at least one identifier is hidden from the user.
- [c8] 8. The computer readable storage medium of claim 1 wherein the at least one identifier is tamper resistant to the user.
- [c9] 9. The computer readable storage medium of claim 1 wherein the at least one identifier is embedded within a file of at least one component of the software.

- [c10] 10. The computer readable storage medium of claim 1 wherein the at least one identifier is a binary code.
- [c11] 11. The computer readable storage medium of claim 1 wherein the at least one identifier is encrypted.
- [c12] 12. The computer readable storage medium of claim 1 wherein the software is electronically distributed.
- [c13] 13. The computer readable storage medium of claim 1 wherein the software is distributed on the computer readable storage medium.
- [c14] 14. The computer readable storage medium of claim 1 further comprising:
instructions for determining whether an attempted access to the software is authorized based on detection of the at least one identifier.
- [c15] 15. The computer readable storage medium of claim 14 wherein the instructions for determining comprise:
instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software.
- [c16] 16. The computer readable storage medium of claim 14 wherein the instructions for determining comprise:
Instructions for determining whether the attempted ac-

cess to the software is authorized based on registration information associated with the software and registration information associated with a user device.

[c17] 17. The computer readable storage medium of claim 1 further comprising:
instructions for communicating registration information to an authorized representative of the software;
instructions for generating at least one authentication code based on the registration information; and
instructions for associating the authentication code with the software.

[c18] 18. The computer readable storage medium of claim 17 wherein authorized representative functions are implemented by a user device.

[c19] 19. The computer readable storage medium of claim 17 wherein authorized representative functions are implemented by software.

[c20] 20. The computer readable storage medium of claim 17 wherein authorized representative functions are implemented by hardware.

[c21] 21. The computer readable storage medium of claim 20 wherein authorized representative functions are implemented by hardware and software.

- [c22] 22. The computer readable storage medium of claim 1 wherein the at least one identifier is included in a file name for at least one component of the software.
- [c23] 23. The computer readable storage medium of claim 22 wherein the at least one identifier is selected from the group consisting of a filename, a filename prefix, a filename suffix, a filename extension, a filename extension prefix, and a filename extension suffix.
- [c24] 24. The computer readable storage medium of claim 22 wherein the identifier is tamper resistant to the user.
- [c25] 25. The computer readable storage medium of claim 22 wherein the at least one identifier is hidden to the user.
- [c26] 26. A computer readable storage medium having data stored therein representing software readable by a computer, the software including instructions for securing software to reduce unauthorized use of the software and selectively exchanging information, the computer readable storage medium comprising:
software including data representing digital content; and
a plurality of identifiers associated with the software prior to distribution of the software, at least one identifier being detectable by a resident authorized representative to request authentication of the software and at

least one identifier being detectable by a resident authorized representative to request selective exchange of information with a remote authorized representative.

[c27] 27. The computer readable storage medium of claim 26 wherein at least one of the identifiers is an activation code that must be entered by the user prior to transferring the software to the user system.

[c28] 28. The computer readable storage medium of claim 26 wherein the instructions for selectively exchanging information include instructions to the resident authorized administrator for contacting a remote authorized representative at predetermined intervals.

[c29] 29. The computer readable storage medium of claim 27 wherein the exchange of information is selected from a group consisting of updates, upgrades, patches, marketing information, promotional information, quality assurance information, network monitoring and metering information, and error and usage information.

[c30] 30. The computer readable storage medium of claim 26 wherein the instructions for selectively exchanging information include instructions for dynamic authorized representative changes.

[c31] 31. The computer readable storage medium of claim 26

wherein the instructions for selectively exchanging information include instructions for repeating the step of authentication.

[c32] 32. The computer readable storage medium of claim 26 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system, code for a game, data representing a movie, data representing graphics, data representing watermarked works, data representing a magazine, and data representing a book.

[c33] 33. The computer readable storage medium of claim 26 wherein the at least one identifier is hidden from the user.

[c34] 34. The computer readable storage medium of claim 26 wherein the at least one identifier is tamper resistant to the user.

[c35] 35. The computer readable storage medium of claim 26 wherein the at least one identifier is embedded within a file of at least one component of the software.

[c36] 36. The computer readable storage medium of claim 26 wherein the at least one identifier is a binary code.

- [c37] 37. The computer readable storage medium of claim 26 wherein the at least one identifier is encrypted.
- [c38] 38. The computer readable storage medium of claim 26 wherein the step of distributing the software comprises electronically distributing the software.
- [c39] 39. The computer readable storage medium of claim 26 wherein the software is electronically distributed.
- [c40] 40. The computer readable storage medium of claim 26 further comprising:
instructions for determining whether an attempted access to the software is authorized based on detection of the at least one identifier.
- [c41] 41. The computer readable storage medium of claim 40 wherein the instructions for determining comprise:
instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software.
- [c42] 42. The computer readable storage medium of claim 40 wherein the instructions for determining comprise:
instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software and registration

information associated with a user device.

[c43] 43. The computer readable storage medium of claim 26 further comprising:

instructions for communicating registration information to an authorized representative of the software;

instructions for generating at least one authentication code based on the registration information; and

instructions for associating the authentication code with the software.

[c44] 44. The computer readable storage medium of claim 43 wherein authorized representative functions are implemented by a user device.

[c45] 45. The computer readable storage medium of claim 43 wherein authorized representative functions are implemented by software.

[c46] 46. The computer readable storage medium of claim 43 wherein authorized representative functions are implemented by hardware.

[c47] 47. The computer readable storage medium of claim 43 wherein authorized representative functions are implemented by hardware and software.

[c48] 48. The computer readable storage medium of claim 26

wherein the at least one identifier is included in a file name for at least one component of the software.

[c49] 49. The computer readable storage medium of claim 48 wherein the identifier is selected from the group consisting of a filename, a filename prefix, filename suffix, filename extension, filename extension prefix, and filename extension suffix.

[c50] 50. The computer readable storage medium of claim 48 wherein the identifier is tamper resistant to the user.

[c51] 51. The computer readable storage medium of claim 48 wherein the at least one identifier is hidden to the user.

[c52] 52. A computer readable storage medium having software including instructions for reducing unauthorized use and selectively exchanging information via at least one authorized representative entity installed on or in a user device and at least one remote authorized representative, the computer readable storage medium comprising:
at least one identifier associated with the software to designate the software for protection from unauthorized use and trigger selective exchange of information;
instructions for detecting the at least one identifier using the authorized representative resident on or in the user

device;

instructions for determining whether the user device is authorized to access the software using the authorized representative entity installed on or in the user device;

instructions for controlling access to the software based on whether the user device is determined to be authorized; and

instructions for selectively exchanging information with the at least one remote authorized representative.

[c53] 53. The computer readable storage medium of claim 52 wherein selectively exchanging information includes instructions to the resident authorized administrator for contacting the remote authorized representative at predetermined intervals.

[c54] 54. The computer readable storage medium of claim 52 wherein the exchange of information is selected from a group consisting of updates, upgrades, patches, marketing information, promotional information, quality assurance information, network monitoring and metering information, and error and usage information.

[c55] 55. The computer readable storage medium of claim 52 wherein exchanging information includes instructions for dynamic authorized representative changes.

- [c56] 56. The computer readable storage medium of claim 52 wherein exchanging information includes instructions for repeating the step of authentication.
- [c57] 57. The computer readable storage medium of claim 52 further comprising:
instructions for determining whether the user device is authorized to access the software using the remotely located authorized representative entity in combination with the at least one authorized representative entity installed on or in the user device.
- [c58] 58. The computer readable storage medium of claim 52 wherein the at least one authorized representative entity installed on or in the user device comprises a computer chip.
- [c59] 59. The computer readable storage medium of claim 52 wherein the at least one authorized representative entity installed on or in the user device comprises program instructions executed by a microprocessor.
- [c60] 60. The computer readable storage medium of claim 59 wherein the program instructions comprise an operating system component.
- [c61] 61. The computer readable storage medium of claim 59 wherein the program instructions comprise an applica-

tion program.

- [c62] 62. The computer readable storage medium of claim 59 wherein the program instructions comprise a driver for a secondary device.
- [c63] 63. The computer readable storage medium of claim 52 wherein the instructions for determining whether the user device is authorized comprise:
instructions for comparing registration information associated with the user device to registration information associated with the software.
- [c64] 64. The computer readable storage medium of claim 63 wherein the registration information associated with the software is embedded within an authentication code.
- [c65] 65. The computer readable storage medium of claim 63 wherein the registration information associated with the software is encrypted.
- [c66] 66. The computer readable storage medium of claim 63 wherein the registration information includes hardware information.
- [c67] 67. The computer readable storage medium of claim 66 wherein the registration information includes hardware information associated with a unique user device.

- [c68] 68. The computer readable storage medium of claim 66 wherein the hardware information includes a serial number.
- [c69] 69. The computer readable storage medium of claim 66 wherein the registration information includes hardware information associated with a group of user devices.
- [c70] 70. The computer readable storage medium of claim 52 wherein the authorized representative entity is installed by a manufacturer of the user device.
- [c71] 71. The computer readable storage medium of claim 52 wherein the authorized representative entity is installed from a computer readable storage medium.
- [c72] 72. The computer readable storage medium of claim 52 wherein the authorized representative entity is installed from the software.
- [c73] 73. The computer readable storage medium of claim 52 wherein the authorized representative entity is downloaded to the user device.
- [c74] 74. The computer readable storage medium of claim 52 wherein the authorized representative entity is transferred to the user device from a network.

- [c75] 75. The computer readable storage medium of claim 52 wherein the instructions for controlling access comprise instructions for preventing the software from being transferred to a second user device.
- [c76] 76. The computer readable storage medium of claim 52 wherein the instructions for controlling access comprise instructions for preventing the software from being transferred to a user device if at least one authorized representative is not present.
- [c77] 77. The computer readable storage medium of claim 52 wherein the step of controlling access comprises preventing the software from being installed on a user device if at least one authorized representative is not present.
- [c78] 78. The computer readable storage medium of claim 52 wherein the step of controlling access comprises preventing the software from being executed by the user device.
- [c79] 79. The computer readable storage medium of claim 52 wherein the step of controlling access comprises providing limited access to the software.
- [c80] 80. The computer readable storage medium of claim 52 wherein the software comprises digital content.

- [c81] 81. The computer readable storage medium of claim 80 wherein the software is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system, code for a game, data representing a movie, data representing graphics, data representing watermarked works, data representing a magazine, and data representing a book.
- [c82] 82. The computer readable storage medium of claim 52 wherein the software comprises instructions for generating at least one authentication code based on registration information associated with the user device.
- [c83] 83. The computer readable storage medium of claim 82 wherein the software comprises instructions for encrypting the authentication code.
- [c84] 84. A computer readable storage medium having data stored therein representing software readable by a computer, the software including instructions reducing unauthorized use and selectively exchanging information, the computer readable storage medium comprising:
software including data representing digital content;
an identifier associated with the software indicating that

protection from unauthorized use is desired;
an identifier associated with the software indicating that selectively exchanging information is requested;
instructions for communicating with an authorized representative entity to determine whether a user device attempting to access the software is authorized to access the software; and
instructions for controlling access to the software based on whether the user device is authorized.

[c85] 85. The computer readable storage medium of claim 84 wherein at least one identifier associated with the software is contained within a filename for the software.

[c86] 86. The computer readable storage medium of claim 84 wherein the authorized representative entity is a hardware device.

[c87] 87. The computer readable storage medium of claim 84 wherein the instructions for communicating with the authorized representative entity comprise instructions for communicating with at least one software module associated with the user device.

[c88] 88. The computer readable storage medium of claim 84 wherein the authorized representative entity is installed on the user device.

[c89] 89. The computer readable storage medium of claim 84 further comprising:
instructions for generating an authentication code based on registration information associated with the user device; and
instructions for associating the authentication code with the software.

[c90] 90. The computer readable storage medium of claim 84 wherein the instructions for communicating comprise:
instructions for generating an authentication code based on registration information associated with the user device; and
instructions for comparing the authentication code with a previously generated authentication code associated with the software to determine if the user device is authorized.

[c91] 91. The computer readable storage medium of claim 90 wherein the instructions for comparing the authentication code comprise instructions for determining if at least a portion of system information associated with the user device matches system information encoded within the authentication code associated with the software.

[c92] 92. The computer readable storage medium of claim 90

wherein the registration information includes hardware-specific information.

[c93] 93. The computer readable storage medium of claim 84 wherein the authorized representative entity is installed on or in the user device.

[c94] 94. The computer readable storage medium of claim 84 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system, code for a game, data representing a movie, data representing graphics, data representing watermarked works, data representing a magazine, and data representing a book.